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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,565

08/16/2006

Thorsten Cywinski

3826 1120US

9879

29894 7590 11/10/2009
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POSTFACH 10 37 62
D-70032 STUTTGART,
GERMANY

EXAMINER

DANIELS, ANTHONY J

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

11/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,565	Applicant(s) CYWINSKI ET AL.	
	Examiner ANTHONY J. DANIELS	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment, filed 7/1/2009, has been entered and made of record. Claims 16-30 are pending in the application.

Response to Arguments

1. Applicant's arguments regarding independent claims 16 and 28 and the Sala rejection have been considered but are moot in view of the new ground(s) of rejection. However, the examiner would like to respond to Applicant's argument regarding the displacement of the lens relative to the image sensor. Applicant argues, "This telescoping action of lens 34 leads to a displacement of lens 34 relative to the image sensor of Sala in a longitudinal direction. In contrast thereto, claims 16 and 28 as amended clearly require the adjustment of the optics element relative to the image sensor to be in a transverse direction, since the bearing surface is substantially parallel to the plane of the image sensor." The examiner acknowledges this argument. However, it cannot be conceded that the claim requires a transverse displacement of the lens relative to the image sensor. The claim simply states, "...means for facilitating displacement of said contact surface of said optics carrier on said bearing surface of said retaining frame until a target position of said optics element relative to said image sensor has been reached...". The examiner submits that this feature would be readable on either transverse or longitudinal displacement of the lens relative to the image sensor.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sala (US # 5,642,238) in view of DeMonte (US # 7,233,737).

As to claim **16**, Sala teaches a camera system (Figure 2), suited for an environmental detection system of a vehicle (Col. 1, Lines 5-10), the system comprising: an image sensor (Figure 2, video camera "35"); an optics element for guiding incident light to said image sensor (Figure 2, lens "34"); an optics carrier to which said optics element is mounted (Figure 2, lens "40"), said optics carrier defining a contact surface (Figure 2); and a retaining frame (Figure 2, plate "32") disposed between and cooperating with said image sensor and said optics carrier (Figure 2; *{Portions of the plate (i.e. mounting spacers "38a-d") are located between the lens "40" and camera "35".}*), said retaining frame defining a bearing surface extending substantially parallel to a plane of said image sensor (Figure 2), said bearing surface contacting and supporting

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said contact surface of said optics carrier (Figure 2), wherein, in an adjustment position, said optics carrier is displaceably held in a plane of said bearing surface for subsequent fixing in a target position (Col. 5, Lines 8-13). The claim differs from Sala in that it further requires a means for facilitating displacement of said contact surface of said optics carrier on said bearing surface of said retaining frame until a target position of said optics element relative to said image sensor has been reached; and means for permanently fixing said optics carrier to said retaining frame.

In the same field of endeavor, DeMonte teaches a fixed-focus camera module including a lens/image sensor positioning mechanism. In operation, once high accuracy positioning is established (i.e. target position), the camera module maintains the high-accuracy positioning by employing a positioning structure that is capable of resisting structural deformation of a degree that would cause the relative positioning of the image sensor and lens to exceed the positioning tolerance (Figure 2; Col. 4, Lines 11-21). In light of the teaching of DeMonte, one of ordinary skill in the art would have been motivated to include this positioning structure in the system of Sala to maintain focus, because an artisan of ordinary skill in the art would recognize that this would allow for high-accuracy positioning to be achieved and maintained (see DeMonte, Col. 4, Lines 9 and 10).

As to claim **17**, Sala, as modified by DeMonte, teaches the camera system of claim 16, wherein said facilitating means comprise pretensioning means disposed on said retaining frame or said optics carrier, said pretensioning means being structured and dimensioned to urge said optics carrier against said bearing surface (see Sala, Figure 2, threaded mounting means “25a” and “25b”).

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As to claim **18**, Sala, as modified by DeMonte, teaches the camera of claim 17, wherein said pretensioning means comprise elastically resilient members which overlap said bearing surface or said contact surface and which at least partially extend perpendicularly with respect to said bearing surface or said contact surface to engage behind sections of said optics carrier or of said retaining frame (Figure 2, threaded mounting means “25a” and “25b”; *{The threaded mounting means have some degree of elasticity.}*).

As to claim **19**, Sala, as modified by DeMonte, teaches the camera system of claim 17, wherein said pretensioning means have recesses effecting elastic resilience (Col. 4, Lines 57 and 58, "...corresponding holes...").

As to claim **20**, Sala, as modified by DeMonte, teaches the camera system of claim 16, wherein said retaining frame is structured to permanently connect said optics carrier to retaining frame in said target position (Figure 2, screws "42a-c").

As to claim **21**, Sala, as modified by DeMonte, teaches the camera system of claim 16. Although it is not stated explicitly in Sala, the examiner takes **Official Notice** that the concept of providing plastic lenses that are optically transparent as well as the concept of welding materials together rather than screwing together are well known and expected in the art. One of ordinary skill in the art would have been motivated to provide the plastic lens in Sala, because this would provide a more durable lens as compared to easily damageable glass. Furthermore, welding alleviates the need for screws; thereby, providing a more compact device.

It is noted by the examiner that because applicant has failed to timely traverse the old and well known statement above, it is now taken as admitted prior art. See MPEP 2144.03 (c).

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As to claim **22**, Sala, as modified by DeMonte, teaches the camera system of claim 17, wherein at least two sides of said bearing surface or said contact surface comprise delimiting elements (Figure 2, mounting spacers “38a-d”).

As to claim **23** Sala, as modified by DeMonte, teaches the camera system of claim 22, wherein said contact surface of said optics carrier is displaced onto said bearing surface via a side having no delimiting elements (Figure 2).

As to claim **24**, Sala, as modified by DeMonte, teaches the camera system of claim 22, wherein said pretensioning means are disposed on said at least two delimiting elements (Figure 2).

As to claim **25**, Sala, as modified by DeMonte, teaches the camera system of claim 16, wherein said bearing surface is larger than said contact surface (Figure 2).

As to claim **26**, Sala, as modified by DeMonte, teaches the camera system of claim 16, further comprising a circuit board on which said image sensor and/or said retaining frame are disposed (Figure 2, video wiring “31”).

As to claim **27**, Sala, as modified by DeMonte, teaches a retaining frame or an optics carrier for the camera system of claim 16 (Figure 2, housing “20”).

As to claim **28**, Sala teaches a method for adjusting an optics carrier (Figure 2), bearing an optics element (Figure 2, lens “34”), relative to an image sensor (Figure 2, video camera “35”), wherein a retaining frame (Figure 2, plate “32”) defines a bearing surface which is substantially parallel to a plane of the image sensor (Figure 2), the optics carrier having a contact surface for abutment against the bearing surface (Figure 2, mounting spacers “38a-d”), the method comprising the steps of: a) displacing the contact surface of the optics carrier on the

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bearing surface of the retaining frame until a target position of the optics element has been reached; and b) permanently fixing the optics carrier to the retaining frame (Col. 5, Lines 8-13). The claim differs from Sala in that it further requires that optical element is displaced relative to the image sensor.

In the same field of endeavor, DeMonte teaches a fixed-focus camera module including a lens/image sensor positioning mechanism. In operation, once high accuracy positioning is established (i.e. target position), the camera module maintains the high-accuracy positioning by employing a positioning structure that is capable of resisting structural deformation of a degree that would cause the relative positioning of the image sensor and lens to exceed the positioning tolerance (Figure 2; Col. 4, Lines 11-21). In light of the teaching of DeMonte, one of ordinary skill in the art would have been motivated to included this positioning structure in the system of Sala to maintain focus, because an artisan of ordinary skill in the art would recognize that this would allow for high-accuracy positioning to be achieved and maintained (see DeMonte, Col. 4, Lines 9 and 10)

As to claim **29**, Sala, as modified by DeMonte, teaches the method of claim 28, wherein a suitable test image is projected onto the optics element to determine the target position, wherein the displacement of step a) is continued until a position of the test image corresponds to an image of the target position recorded by the image sensor (Col. 5, Lines 8-14).

As to claim **30**, Sala, as modified by DeMonte, teaches the method of claim 28, wherein permanent fixing is effected through welding and/or gluing. *See claim 21 above.*

It is noted by the examiner that because applicant has failed to timely traverse the old and well known statement above, it is now taken as admitted prior art. See MPEP 2144.03 (c).

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. DANIELS whose telephone number is (571)272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD

11/2/2009

/Sinh Tran/

Supervisory Patent Examiner, Art Unit 2622